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BURLINGAME, A.H.		
BUSBY, W.S.		
CARNIVAL, G.J.		
CORDOVA, R.C.		
DAVIS, J.G.		
FERRERA, D.W.		
FRAY, R.E.		
GEIS, J.A.		
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HANNI, B.J.		
HEALY, T.J.		
HEDAHL, T.G.		
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KELL, R.E.		
KUESTER, A.W.		
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McDONALD, M.M.		
McKENNA, F.G.		
MORGAN, R.V.		
PIZZUTO, V.M.		
POTTER, G.L.		
SANDLIN, N.B.		
SATTERWHITE, D.G.		
SCHUBERT, A.L.		
SCHWARTZ, J.K.		
SETLOCK, G.H.		
STIGER, S.G.		
TOBIN, P.M.		
VOORHEIS, G.M.		
WILSON, J.M.		
Schubbe, D.	XX	
Hollowell, L.	X	X

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

Nov 16 3 25 PM
EG&G ROCKY FLATS PLANT
CORRESPONDENCE CONTROL

NOV 14 1994

Ref: 8HWM-FF

Mr. Joe Schieffelin
Hazardous Waste Facilities Unit Leader
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80222-1530

Dear Mr. Schieffelin:

The purpose of this letter is to transmit EPA's comments on the Draft Remedial Investigation (RI) report for Operable Unit (OU) 15, the Inside Building Closure Units.

The comments identified several concerns regarding: 1) the CERCLA/RCRA action justification approach used in the report to present the results of the characterization efforts; 2) CERCLA cleanup performance standards; and 3) Quality Assurance/Quality Control (QA/QC) problems with the sampling techniques. EPA feel that this report needs to undergo substantial revision.

In order to provide DOE with the necessary time to make the appropriate revisions, EPA is willing to consider an extension c the milestone date for the delivery of the final RI report.

Please do not hesitate to contact Arturo Duran of my staff at (303) 294-1080 with any questions you may have on this matter

Sincerely,

Martin Hestmark

Martin Hestmark, Manager
Rocky Flats Project

cc: Jessie Roberson, DOE
Bill Fitch, DOE
Dennis Schubbe, EG&G
Carl Spreng, CDPHE
Arturo Duran, EPA

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Reviewed for Addressee
Corres. Control RFP

11-16-94 DATE jrs BY

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DOE ORDER # 5400.1

Printed on Rec

EPA's Comments on the Phase I RFI/RI Report
Operable Unit (OU) 15,
Inside Building Closures

Specific Comments

Executive Summary, page 3, last sentence, first paragraph. The text states that the data included in the RI report was judged to be of sufficient quality to support the required decision process. EPA disagrees with this statement. EPA has several QA/QC concerns with the performed sampling activities. These concerns are detailed in the specific comments.

Executive Summary, page 5, item #4. The identified ARARs for radionuclides (worker radiation protection standards) are not, by themselves appropriate to support a "No Action" decision for OU 15. In order to demonstrate full compliance with CERCLA standards, DOE needs to demonstrate that the radioactive contamination in OU 15 is present below a risk based standards. DOE will need to develop preliminary remediation goal (PRG) concentrations for each radionuclide based on 10^{-6} risk level. Any radioactive contamination found at OU 15 needs to be compared to the PRG concentrations. Compliance with worker radiation protection standards may be appropriate while DOE continues to follow existing safety protocols during the operation of the buildings. However, when the uses of the buildings change or when the buildings are ready to undergo decontamination & decommissioning (D&D) activities, the worker radiation protection standards may not apply and radioactive contamination currently present at OU 15 IHSSs may present a risk to human health and the environment. Therefore, further cleanup of contaminated areas in OU 15 may need to be conducted during D&D activities or as part of final cleanup of the buildings.

Section 1.2.1, requirements of Interagency Agreement, page 9. The text states that a Baseline Risk Assesssment (BRA) is not required for OU 15. The use of health and safety radiological standards are inappropriate to justify a "No Action" decision for OU 15. If a BRA is not performed, then DOE needs to develop PRG concentrations at 10^{-6} risk level. EPA believes that an industrial exposure scenario is appropriate to be considered during the development of the PRG concentrations. If contamination at OU 15 exceeds the risk based standards, then further cleanup activities will be required.

Section 3.2, Sampling Activities, page 2. This section needs to explain the rationale for not conducting hot water rinsate verification outside the perimeter of the OU 15 IHSSs.

Section 3.3.2, Hot Water Rinsate Sample Collection, page 7. This section failed to describe how equipment cross-contamination is prevented during the rinsate sampling activities. This needs to

be addressed in the final RI report. In addition, this section needs to explain how the rinsate concentration is correlated to surface contamination.

Section 3.3.4, Hot Water Rinsate Verification Sample Collection, page 9. This section states that rinsate verification sampling was limited to the actual IHSS location. This section needs to explain the rationale for not conducting verification sampling in areas outside the IHSSs where contamination was encountered during the stage II sampling effort. EPA can not concur with the statements made claiming that releases from OU 15 IHSSs are not of CERCLA concern. EPA is unable to concur because of lack of verification data outside the IHSSs.

Section 3.5, Data Quality Assurance/Quality Control, page 10. This section needs to explain why two different hot water sources were utilized during the initial hot water rinsate sampling activities. In addition, this section needs to explain why distilled water was used only for the collection of the verification samples and not for the initial hot water rinsate samples. Using different source of water for the sampling may result in QA/QC sampling problems.

This section states that rinsate blanks of the sampling equipment were collected for the purpose of measuring the effectiveness of sampling equipment decontamination. However, hot water rinsate blanks were not collected during equipment operation prior to conducting the hot water sampling activities. This section needs to address how sampling equipment cross-contamination during sampling activities was avoided or quantified. EPA is unable to accept an explanation to rule out any contaminants detected in the sample analysis based on a possible equipment contamination without any justifiable data presented.

The three equipment blank samples, or hot water rinsate blanks, collected from hot water rinsate sampling at an off-site location are not acceptable.

Section 4.2.2, PARCC, Field Accuracy, page 9, first bullet. It is not clear how equipment rinsate blanks can be utilized to identify any contaminants associated with sample cross-contamination. The equipment rinsate blank can only be used to identify any contamination that was present in the equipment. However, any contamination identified in the equipment rinsate blank does not necessarily represent contamination in the equipment prior to performing the sampling activities. The reason is that contaminants in the equipment may be washed out of the equipment during the collection of the equipment rinsate blank.

Section 4.2.2, PARCC, Field Accuracy, page 10, second bullet. This statement regarding field blanks (source water) is confusing. The text should clarify that the field blanks identify contaminants present in the source water prior to

equipment operation.

Section 4.2.2, PARCC, Field Accuracy, page 10, third bullet. The amount of contaminants leaching out of the sampling equipment are not expected to be constant throughout the entire use of the sampling equipment. This section needs to address any expected concentration variances in the hot water rinsate blanks.

Section 4.2.2, PARCC, Field Accuracy-Trip Blanks, page 12. This section needs to explain the rationale for analyzing eight of the nine total trip blanks only for VOCs. In addition, this section needs to explain the presence of metals such as cadmium and lead in the trip blanks.

Section 4.2.2, PARCC, Field Accuracy-Field Blanks, page 13. This section presents the analysis results of RFP domestic water. The Safe Drinking Water Standards were exceeded for cadmium and chloroform. This needs to be explained. If this analysis is accurate, RFP needs to report these exceedences, so that domestic water at RFP is not used as a drinking source until compliance with the Safe Drinking Water Act standards is achieved.

Section 4.2.2, PARCC, Field Accuracy, Hot Water Rinsate Blanks, page 14, paragraph 4, last sentence. The text states if the analysis results show contituents found in the equipment hot water rinsate blanks, this can be considered artifacts of the sampling procedure. This statement questions the effectivenes and reliability of the sampling techniques. DOE should consider alternative sampling techniques that have a lower potential for cross-contamination of the samples. In addition, this section needs to present any analysis of the distilled water (source water). EPA questions the validity of the statement made about cadmium, lead and zinc being present in the distilled source water.

Section 4.2.3, Statistical Evaluation of Smear Data, page 18. EPA agrees that the change in smear samples results (increase) from pre-rinsate to post-rinsate is not attributable to random variation. However, EPA disagrees with the explanation of the results provided later in this section. Throughout the report several statements are made claiming that the sampling technique for collection of rinsate samples cleans the surface. This contradicts the statement that the sampling techniques make contaminants more accessible at the surface, thereby resulting in higher post-rinsate samples. In the event that the sampling process draws contaminants out of cracks and fissures in the surface, the contaminants, once on the surface, should be entrapped in the rinsate stream. This section needs to explain this further.

The fact that post-rinsate smear samples showed higher contamination, demonstrates that the IHSSs are not clean. Therefore, DOE may need to perform further clean up at those IHSSs where contamination was detected.

Section 5.0, Nature and Extent of Contamination, page 1. The evaluation of contamination associated with OU 15 IHSSs is split in two sections; one that addresses the RCRA regulated constituents and one that addresses CERCLA concerns. It is inappropriate to discuss the investigation results based on different regulatory frameworks. The RI report is not the appropriate mechanism to justify decisions based on RCRA or CERCLA requirements. The RI report should discuss the results of the investigations and associated risk from the contamination. The meaning of the results with respect to RCRA and CERCLA should be done via a decision document where a decision is proposed and justified.